

REMARKS

Applicants and applicants' representatives wish to thank Examiner Hodges and Primary Examiner Patel for the assistance extended during the telephone interview held on April 27, 2005. In view of the discussion during the interview, the foregoing amendments, and the following remarks, reconsideration and allowance of the claims are respectfully requested.

Claims 5-12, 21-28, 31-34, 39, 40, 43-46, and 51-104 are pending, with claims 5, 7, 9, 11, 21, 23, and 53-60 being independent. Claims 13-20, 35-38, and 47-50 are cancelled by this amendment without waiver or prejudice.

The title stands objected to for not being descriptive. Applicants previously amended the title in the response to the previous non-final office action to make the title more descriptive. As such, applicants respectfully request reconsideration and removal of the objection to the title.

Claims 21-24, 51, and 52 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Aziz et al. (6,392,339) ("the Aziz '339 patent"). Applicants have amended the claims to obviate the rejection.

As amended, independent claim 21 recites a light emitting device that includes an organic light emitting element comprising a light emitting layer having a first organic compound, a hole transporting layer having a second organic compound, and an electron transporting layer having a third organic compound. The light emitting device includes a first mixed region including the first organic compound and the second organic compound between the light emitting layer and the hole transporting layer, and a second mixed region including the first organic compound and the third organic compound between the light emitting layer and the electron transporting layer. The light emitting layer does not include the second organic compound and the third organic compound. Applicants respectfully request reconsideration and withdrawal of the rejection because the Aziz '339 patent fails to describe or suggest a light emitting layer that does not include the second organic compound and the third organic compound.

Instead, as discussed during the telephone interview, the Aziz '339 patent describes a mixed region (38 of Fig. 2 or 138 of Fig. 3) between a hole transporting layer and an electron transporting layer. The mixed region includes a mixture of hole transport material and electron transport material. See Aziz '339, col. 4, lines 42-56. The mixed region (38 of Fig. 2 or 138 of

Fig. 3) may include multiple layers, one of which may be a light emitting layer. See Aziz '339, col. 9, lines 60-67 and col. 10, lines 50-53. Thus, in the Aziz '339 patent, the light emitting layer is part of the mixed layer and includes both hole transport material and electron transport material. As such, the Aziz '339 patent does not describe or suggest a light emitting layer that does not include the second organic compound and the third organic compound, as recited in amended claim 21.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of claim 21 and its dependent claims 22 and 51.

Similarly to claim 21, claim 23 recites a light emitting device including an organic light emitting element that includes a light emitting layer including a first organic compound, a hole transporting layer that includes a second organic compound, and an electron transporting layer that includes a third organic compound. The light emitting device includes a first mixed layer that includes the first organic compound and the second organic compound between the light emitting layer and the hole transporting layer, and a second mixed layer that includes the first organic compound and the third organic compound between the light emitting layer and the electron transporting layer. The light emitting layer does not include the second organic compound and the third organic compound.

For at least the reasons discussed above with respect to claim 21, applicants respectfully request reconsideration and withdrawal of the rejection of claim 23 and its dependent claims 24 and 52.

Claims 21-28, 39, 40, 51-68, and 81-104 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Aziz et al. (6,392,250) ("the Aziz '250 patent"). Applicants have amended the claims to obviate the rejection.

With respect to independent claims 21 and 23, the Aziz '250 patent describes an organic light emitting device having structure similar to that described in the Aziz '339 patent. See the Aziz '250 patent, col. 5, lines 11-24, and Fig. 2. Thus, for the reasons discussed above with respect to claims 21 and 23, the Aziz '250 patent also fails to describe or suggest the features of a light emitting layer that does not include the second organic compound and the third organic compound.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 21 and 23, and their respective dependent claims 22, 24-28, 39, 40, 51, and 52.

With respect to independent claims 53-60, the Aziz '250 patent also fails to describe or suggest features of these claims for similar reasons. More specifically, for example, independent claim 53 recites a light emitting device including an organic light emitting element that includes, among other features, an organic compound film that includes a hole transporting region, a first mixed region, a light emitting region, a second mixed region and an electron transporting region, that are connected in the noted order with the hole transporting region being nearest to the anode and the electron transporting region being nearest to the cathode. The light emitting region does not include the hole transporting material and the electron transporting material. The Aziz '250 patent fails to describe a light emitting region that does not include the hole transporting material and the electron transporting material. Rather, the Aziz '250 patent describes a mixed region that includes hole transporting material and electron transporting material having multiple layers, one of which may be a light emitting layer. Thus, the light emitting layer in the Aziz '250 patent includes the hole transporting material and the electron transporting material. As recited in claim 53, the light emitting region does not include the hole transporting material and the electron transporting material.

Similarly, each of independent claims 54-60 recites a light emitting device that includes, among other features, a light emitting region that does not include the hole transporting material and the electron transporting material. As such, these claims are allowable over the Aziz '250 patent for the reasons discussed above with respect to claim 53.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 53-60, and their respective dependent claims 61-68 and 81-104.

Claims 5-12, 31-34, and 43-46 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Aziz '339 patent and in further view of So et al. (5,925,980). Applicants have amended the claims to obviate this rejection.

Independent claim 5 recites a light emitting device comprising an organic light emitting element that includes a hole injecting layer having a first organic compound that serves as a hole injecting material in contact with an anode, a hole transporting layer having a second organic compound that serves as a hole transporting material, and a mixed region that includes the first organic compound and the second organic compound between the hole injecting layer and the hole transporting layer. Applicants respectfully request reconsideration and withdrawal of the rejection because the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest a mixed region that includes the first organic compound and the second organic compound and is located between the hole injecting layer and the hole transporting layer, where the first organic compound serves as a hole injecting material and the second organic compound serves as a hole transporting material.

The Aziz '339 patent describes an organic light emitting device 130 that includes a multiple-layered hole transport region 136 and a multiple-layered electron transport region 140. See the Aziz '339 patent, col. 5, lines 5-24 and Fig. 3. The Aziz '339 patent does not describe or suggest a mixed region that includes the first organic compound that serves as a hole injecting material and the second organic compound that serves as a hole transporting material between the hole injecting layer and the hole transporting layer, as recited in amended independent claim 5.

So does not remedy this failure of the Aziz '339 patent. Rather, So describes a mixed region of hole transporting material and electron transporting material, where the mixed region is between a hole transporting region and an electron transporting region. See So at Abstract. So does not describe or suggest a mixed region between a hole injecting layer and a hole transporting layer. So also does not describe or suggest a mixed region that includes both an organic compound that serves as a hole injecting material and an organic compound that serves as a hole transporting material.

Independent claim 7 recites a light emitting device that includes, among other features, a mixed layer that includes a first organic compound and a second organic compound and located between the hole injecting layer and the hole transporting layer, where the first organic compound serves as a hole injecting material and the second organic compound serves as a hole

transporting material. As discussed above, the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest this feature.

Independent claim 9 recites a light emitting device that includes, among other features, a mixed region having the first organic compound and the second organic compound and located between the electron injecting layer and the electron transporting layer, where the first organic compound serves as an electron injecting material and the second organic compound serves as an electron transporting material. As discussed above, the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest this feature.

Independent claim 11 recites a light emitting device that includes, among other features, a mixed layer having the first organic compound and the second organic compound and is located between the electron injecting layer and the electron transporting layer, where the first organic compound serves as an electron injecting material and the second organic compound serves as an electron transporting material. As discussed above, the Aziz '339 patent and So, either alone or in combination, fail to describe or suggest this feature.

For at least these reasons, applicants respectfully request withdrawal of the § 103(a) rejection of independent claims 5, 7, 9, and 11, and their respective dependent claims.

Claims 69-80, which depend from their respective independent claims 54-56 and 58-60, stand rejected under 35 U.S.C. §103(a) as being unpatentable over the Aziz '250 patent. For at least the reasons discussed above with respect to independent claims 54-56 and 58-60 and based on their dependency from these independent claims, applicants respectfully request withdrawal of the rejection of dependent claims 69-80.


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Enclosed is a check for \$1240 of which \$790 is for the RCE fee and \$450 is for the extension of time fees. During the pendency and the prosecution of this application, please apply any deficiencies or credits to deposit account 06-1050.

Respectfully submitted,

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